

Rpt. 4.

REPORT ON MACHINERY.

No. 45333.

Received at London Office 27 JAN 1926

Date of writing Report 22-1-1926 When handed in at Local Office 23-1-1926 Port of Glasgow
 No. in Survey held at Blydebank Date, First Survey 7-7-25 Last Survey 19 Jan 1926
 Reg. Book. on the S.S. "Minard" (Number of Visits 27) Tons { Gross 241 Net 91
 Master Built at Bowling By whom built Scott & Sons (305) When built 1926
 Engines made at Blydebank By whom made Aitchison, Blair, & Co. (154) when made 1926
 Boilers made at Glasgow By whom made D. Rowan & Co. (333) when made 1926
 Registered Horse Power Owners Blyde Cargo Steamers Ltd Port belonging to Glasgow
 Nom. Horse Power as per Section 28 87 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted Yes

ENGINES, &c.—Description of Engines Compound No. of Cylinders 2 No. of Cranks 2
 Dia. of Cylinders 17 1/2 - 36 Length of Stroke 24 Revs. per minute 122 Dia. of Screw shaft 7 7/8 Material of Steel
 Is the screw shaft fitted with a continuous liner the whole length of the stern tube Yes Is the after end of the liner made water tight
 in the propeller boss Yes If the liner is in more than one length are the joints burned Yes If the liner does not fit tightly at the part
 between the bearings in the stern tube, is the space charged with a plastic material insoluble in water and non-corrosive Yes If two
 liners are fitted, is the shaft lapped or protected between the liners Cont liner Length of stern bush 32
 Dia. of Tunnel shaft 6.95 Dia. of Crank shaft journals 7.3 Dia. of Crank pin 7 1/2 Size of Crank webs 14 1/2 x 5 Dia. of thrust shaft under
 collars 7 1/2 Dia. of screw 9-0 Pitch of Screw 10-6 No. of Blades 4 State whether moveable No Total surface 27.6
 No. of Feed pumps 2 Diameter of ditto 2 1/4 Stroke 11 Can one be overhauled while the other is at work Yes
 No. of Bilge pumps 2 Diameter of ditto 2 1/4 Stroke 11 Can one be overhauled while the other is at work Yes
 No. of Donkey Engines 1-8 Sizes of Pumps 5" x 3 1/2" x 6" No. and size of Suctions connected to both Bilge and Donkey pumps
 In Engine Room 1-2 In Holds, &c. 1-2" 2", 1-2" 2", 1-TUNNEL 2"
 No. of Bilge Injections 1 sizes 3 3/4 Connected to condenser to circulating pump Yes Is a separate Donkey Suction fitted in Engine room & size 1-2 1/2
 Are all the bilge suction pipes fitted with roses Yes Are the in Engine room always accessible Yes Are the sluices on Engine room bulkheads always accessible None
 Are all connections with the sea direct on the skin of the ship Yes Are they Valves or Cocks Both
 Are they fixed sufficiently high on the ship's side to be seen without lifting the stokehold plates Yes Are the Discharge Pipes above or below the deep water line below
 Are they each fitted with a Discharge Valve always accessible on the plating of the vessel Yes Are the Blow Off Cocks fitted with a spigot and brass covering plate Yes
 What pipes are carried through the bunkers None How are they protected Yes
 Are all Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times Yes
 Are the Bilge Suction Pipes, Cocks, and Valves arranged so as to prevent any communication between the sea and the bilges Yes
 Is the Screw Shaft Tunnel watertight Yes Is it fitted with a watertight door Yes worked from E.R. Cop platform

BOILERS, &c.—(Letter for record Glasgow) Manufacturers of Steel W. & A. Mitchell
 Total Heating Surface of Boilers 2,500 Is Forced Draft fitted Yes No. and Description of Boilers 2 Spring Loaded
 Working Pressure 135 Tested by hydraulic pressure to 135 Date of test 18th No. of Certificate 18
 Can each boiler be worked separately Yes Area of fire grate in each boiler 8.3 No. and Description of Safety Valves to Yes
 each boiler 2 Spring Loaded Area of each valve 8.3 Pressure to which they are adjusted 135 Are they fitted with easing gear Yes
 Smallest distance between boilers or uptakes and bunkers or woodwork 12 Mean dia. of boilers 12 Length 12 Material of shell plates Steel
 Thickness 1/2 Range of tensile strength 45,000 Are the shell plates welded or flanged Yes Descrip. of riveting: cir. seams Yes
 long. seams Yes Diameter of rivet holes in long. seams 1/8 Pitch of rivets 5 Lap of plates or width of butt straps 1 1/2
 Per centages of strength of longitudinal joint 85 Working pressure of shell by rules 135 Size of manhole in shell 18
 Size of compensating ring 18 No. and Description of Furnaces in each boiler 2 Material Steel Outside diameter 18
 Length of plain part 18 Thickness of plates 1/2 Description of longitudinal joint Yes No. of strengthening rings 18
 Working pressure of furnace by the rules 135 Combustion chamber plates: Material Steel Thickness: Sides 1/2 Back 1/2 Top 1/2 Bottom 1/2
 Pitch of stays to ditto: Sides 18 Back 18 Top 18 If stays are fitted with nuts or riveted heads Yes Working pressure by rules 135
 Material of stays Steel Area at smallest part 18 Area supported by each stay 18 Working pressure by rules 135 End plates in steam space: Yes
 Material Steel Thickness 1/2 Pitch of stays 18 How are stays secured Yes Working pressure by rules 135 Material of stays Steel
 Area at smallest part 18 Area supported by each stay 18 Working pressure by rules 135 Material of Front plates at bottom Steel
 Thickness 1/2 Material of Lower back plate Steel Thickness 1/2 Greatest pitch of stays 18 Working pressure of plate by rules 135
 Diameter of tubes 18 Pitch of tubes 18 Material of tube plates Steel Thickness: Front 1/2 Back 1/2 Mean pitch of stays 18
 Pitch across wide water spaces 18 Working pressures by rules 135 Girders to Chamber tops: Material Steel Depth and 18
 thickness of girder at centre 18 Length as per rule 18 Distance apart 18 Number and pitch of stays in each 18
 Working pressure by rules 135 Steam dome: description of joint to shell Yes % of strength of joint 135
 Diameter 18 Thickness of shell plates 1/2 Material Steel Description of longitudinal joint Yes Diam. of rivet holes 1/8
 Pitch of rivets 5 Working pressure of shell by rules 135 Crown plates 1/2 Thickness 1/2 How stayed Yes
 SUPERHEATER. Type Horizontal Date of Approval of Plan 18th Tested by Hydraulic Pressure to 135
 Date of Test 18th Is a Safety Valve fitted to each Section of the Superheater which can be shut off from the Boiler Yes
 Diameter of Safety Valve 18 Pressure to which each is adjusted 135 Is Easing Gear fitted Yes

IS A DONKEY BOILER FITTED? *No*

If so, is a report now forwarded? *✓*

SPARE GEAR.

State the articles supplied:—

As per Rule requirements, & 1- propeller.

The foregoing is a correct description,

AITCHISON, BLAIR, LIMITED,

Arch Blair

Manufacturer.

Dates of Survey { During progress of work in shops -- } *1925 July 7 Aug 3. 20. 28. 27. Sep 8. 15. 22. 30. Oct 7. 9. 21. 28 Nov 6. 12. 20. 26. 28.*
{ During erection on board vessel -- } *Dec 1. 4. 8. 10. 16. 22. 23. 1926. Jan 11. 19.*
Total No. of visits *27.*

Is the approved plan of main boiler forwarded herewith *No*

" " " donkey " " " *None*

Dates of Examination of principal parts—Cylinders *26-11-25* Skids *26-11-25* Covers *26-11-25* Pistons *26-11-25* Rods *26-11-25*

Connecting rods *26-11-25* Crank shaft *15-9-25* Thrust shaft *12-11-25* Tunnel shafts *12-11-25* Screw shaft *12-11-25* Propeller *12-11-25*

Stern tube *12-11-25*. Steam pipes tested *23-12-25* Engine and boiler seatings *1-12-25* Engines holding down bolts *11-1-26*

Completion of pumping arrangements *19-1-26* Boilers fixed *1-12-25* Engines tried under steam *19-1-26*

Completion of fitting sea connections *1-12-25* Stern tube *1-12-25* Screw shaft and propeller *1-12-25*.

Main boiler safety valves adjusted *19-1-26* Thickness of adjusting washers *8. 11/32. P. 3/8*

Material of Crank shaft *S* Identification Mark on Do. *7422*. Material of Thrust shaft *S* Identification Mark on Do. *393*

Material of Tunnel shafts *S* Identification Marks on Do. *394. 405*. Material of Screw shafts *S* Identification Marks on Do. *392*.

Material of Steam Pipes *Copper* Test pressure *260 lbs*

Is an installation fitted for burning oil fuel *No* Is the flash point of the oil to be used over 150°F. *✓*

Have the requirements of Section 49 of the Rules been complied with *✓*

Is this machinery duplicate of a previous case *No* If so, state name of vessel *✓*

General Remarks (State quality of workmanship, opinions as to class, &c. *The Engines and boiler*

of this vessel have been built under special survey in accordance with the approved plans and the Society's Rules and requirements, the materials and workmanship are good, they have been securely fitted on board, and satisfactorily tried under steam, and in my opinion are eligible for the record + L.M.C. 1-26.

It is submitted that
this vessel is eligible for
THE RECORD. + LMC 1-26. CL.

CERTIFICATE WRITTEN
3/2/26

The amount of Entry Fee ... £ *2-0-0* When applied for.
Special *3/5* ... £ *13-1-0* *23/1/26*
Donkey Boiler Fee ... £ : :
Travelling Expenses (if any) £ : : *20/2/26*

Committee's Minute *GLASGOW 26 JAN 1926*

Assigned *+ LMC 1,26*

Jas. S. Cairns
29/1/26

Jas. S. Cairns
Engineer Surveyor to Lloyd's Register of Shipping.

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Foundation